AP Microeconomics
Test: Efficiency, Equity, and the Role of Government
Instructor's Version

Answers: Free-Response Questions

1. Externalities and Public Goods

A. Define positive and negative externalities and provide an example of each. (8 points)

1. Positive externalities are third-party benefits. Someone other than the producer or consumer of a good or service receives them.
2. Examples of positive externalities include nice landscaping or the smell of a bakery.
3. Negative externalities are third-party costs. Someone other than the producer or consumer of a good or service pays them.
4. Examples of negative externalities include air or water pollution.

2 points for each part.

B. What makes something a public good? (4 points) **How are externalities involved in public goods?** (4 points)

Public goods are non-exclusionary because the provider can't stop those who don't pay for a good from enjoying it. Public goods are also nonrival in consumption because they can be used without leaving less available for others. Because public goods are a market failure, governments sometimes step in and pay the costs of providing public goods. This results in positive externalities—benefits enjoyed by consumers.

2 points for each sentence.

C. Give an example of a public good that the government provides. Explain why the provision of this good is not left to the free market. (8 points)

Explanation: Because this good is both nonrival and non-exclusionary, its provision cannot be left up to the free market, or the good would not be provided. This is because of the non-exclusionary nature of this good (all public goods). Private businesses can't supply these goods and make a profit because they can't stop nonpaying customers from enjoying the benefits.

2 points for an appropriate example, 2 points for each sentence in the explanation.

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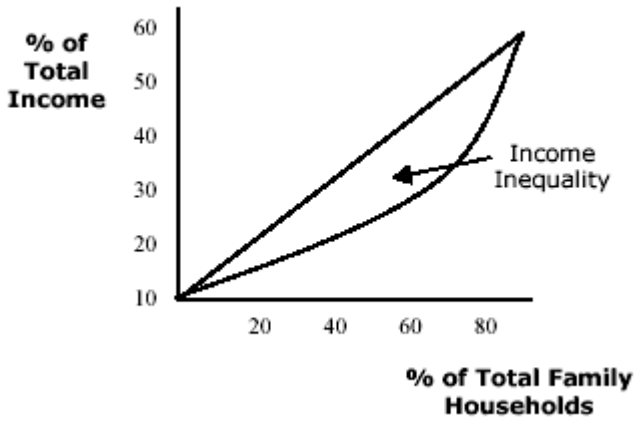
2. Income Distribution and Taxes

A. Draw a Lorenz curve. (5 points) **What does this curve represent?** (2 points)

Graph:



Description: The Lorenz curve measures the amount of income inequity that exists at any one point in time.

Graph: 1 point for each part, correctly labeled (5 points). Description: 2 points.

B. Why are taxes needed? (3 points) **Explain the different criteria for deciding whether or not a tax is fair.** (4 points)

Taxes are needed to pay for public goods and services that the government provides.

The benefit principle is one criterion—it states that those who benefit from a government expenditure should pay the tax that funds that expenditure. The "ability to pay" principle is another criterion—it states that the people with the most money should pay most of the taxes.

3 points for explaining why taxes are needed, 2 points for an accurate description of each of the two criteria (4 points).

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C. What is regressive taxation? (3 points) **Make a positive and normative statement against a regressive tax. Be clear about which statement is positive and which is normative.** (4 points)

Definition: A regressive tax takes a larger percentage of lower incomes and a smaller percentage of higher incomes. Therefore, the burden of a regressive tax decreases as income increases.

Normative argument against: A regressive tax increases the amount of income inequality that exists in a society.

Positive argument against: A regressive tax violates the "ability to pay" principle.

3 points for the definition, 2 points for each argument.

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